

AMENDMENTS TO THE SPECIFICATION

Please amend the specification by rewriting the following paragraphs, as set forth below in marked-up form.

Please amend paragraph 5, beginning on page 1, line 14, with the following amended paragraph:

[0005] Various semiconductor memories using new memory materials have recently been proposed. Many of these memories are nonvolatile but capable of high speed operation ~~at as high speed_equal to as_a~~ DRAM, and thus promise to be applied in the future as "next-generation memories."

Please amend paragraph 48, beginning on page 10, line 14, with the following amended paragraph:

[0048] Ferroelectric film ~~has_does not have~~ small variations in crystal orientation and amount of polarization because of imperfection of its crystal. Such variations are averaged in large capacitors and thus do not present much of a problem, but become noticeable as the capacitors are made smaller. For example, when capacitor area and load capacitance are both reduced to 1/4, an average signal value is directly scaled and unchanged, while statistical variations are increased twofold.

Please amend paragraph 127, beginning on page 33, line 23, with the following amended paragraph:

[0127] As in FIGS. 1A and 1B~~18~~, signal levels "0" and "1" of the memory cells shown by the cell signals CS11, CS12, and CS13 are varied, as indicated by • and ○. These signals are changed in a direction in which the "0" data and the "1" data approach each other as indicated by X and Δ due to data retention deterioration, disturb deterioration, and the like.

Please amend paragraph 178, beginning on page 44, line 10, with the following amended paragraph:

[0178] FIG. 5A shows an example of distribution of remaining signals when a pulse is simply dropped from a high to a low in a normal (not amplification type) cross point type. When a single reference signal is given to the most appropriate position with this example as normal distributions, an error rate is estimated to be 3×10^{-6} . However, it is very difficult to estimate such an optimum position in a design stage and generate a reference signal at the position without an error. An actual error rate is further deteriorated.

Please amend paragraph 180, beginning on page 45, line 1, with the following amended paragraph:

[0180] In this case, the distribution of "1" signals in particular is improved significantly, with the error rate reduced to 3×10^{-8} . In addition, in this case, reference signals are generated automatically, so that the above-mentioned difficulty in generating the reference signal is eliminated.

Please amend paragraph 187, beginning on page 46, line 9, with the following amended paragraph:

[0187] One of a drain and a source of the charging transistor Tcg is connected to a constant voltage node (for example Vcc), and the other of the drain or the source of the charging transistor Tcg is connected to a point connecting the capacitor C with the access transistor Ta (internal node NE).